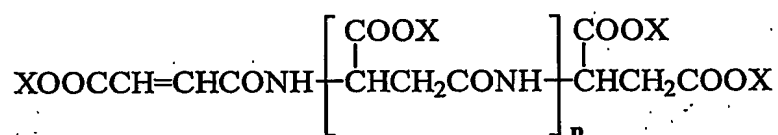


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C L A I M S

1. A poly- β -carboxyacrylamide polymer of formula
(I)



(I)

10 wherein

X is an alkaline metal or a substituent capable of bringing about an exchange reaction with a salt of an alkaline earth metal,
said polymer having a ponderal average molecular weight
15 greater than or equal to 2,000.

2. A polymer according to claim 1, wherein said polymer of formula (I) has a ponderal average molecular weight ranging between 5,000 and 50,000.

3. A polymer according to claim 1 or 2, wherein
20 said polymer of formula (I) has a ponderal average molecular weight ranging between 10,000 and 30,000.

4. A polymer according to any one of claims 1 to 3, wherein X is Na.

5. A process for preparing a polymer as described
25 in preceding claims 1 to 4, comprising the step of

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polymerisation in an aqueous phase of a maleate of ammonium and of an alkaline metal or a precursor thereof in the presence of a chain terminating compound in the form of a maleate completely salified with an alkaline metal or with a substituent capable of bringing about an exchange reaction with a salt of an alkaline earth metal, at a temperature of between 90 and 175°C and a molar ratio between chain terminating compound and monomer to be polymerised equal to or greater than 1 :

10 8.

6. A process according to claim 5, wherein the compound of formula (I) is prepared by means of polymerisation in the aqueous phase of a maleate of sodium and ammonium in the presence of a chain terminating compound in the form of a maleate salified with an alkaline metal selected from lithium, sodium and potassium.

15

7. A process according to claim 6, wherein the monomer subjected to polymerisation is maleate of sodium and ammonium and the chain terminating compound is disodium maleate.

20

8. A process according to any one of claims 5 to 7, wherein the reaction temperature is between 125 and 150°C.

25 9. A polymer obtainable according to the process

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described in claims 5 to 8.

10. The use of the polymer described in any one of claims 1-4 and 9 as a sequestering agent in relation to the alkaline earth metals in the form of salts.

5 11. The use according to claim 10 as a sequestering agent for calcium and magnesium in the form of bicarbonate, chloride and sulphate.

12. The use according to claim 11 as a sequestering agent for calcium in the form of
10 bicarbonate.

13. The use of the polymer described in any one of claims 1-4 and 9 as "cobilder".

14. A detergent composition characterised in that it comprises an effective amount of the polymer
15 described in claims 1-4 and 9.

15. A collutory characterised in that it comprises an effective amount of the polymer described in any one of claims 1-4 and 9.

16. A decalcifying device characterised in that it
20 comprises a polymer as described in any one of claims 1-4 and 9.